Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
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Ann F. Jennings
Secretary of Natural and Historic Resources

David K. Paylor
Director
(804) 698-4000

James J. Golden
Regional Director

DRAFT

Mr. Robert W. Sauer
Vice President Systems Operation
Virginia Electric and Power Company
Dominion Energy - Greensville County Power Station
600 Canal Street
Richmond, VA 23219

Location: Greensville County
Registration No.: 52525

Dear Mr. Sauer:

Attached is an initial Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning [DRAFT 2022].

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on July 3, 2019 and solicited written public comments by placing a newspaper advertisement in the Emporia Independent Messenger on December 5, 2021. The thirty-day required comment period, provided for in 9VAC5-80-670 expired on January 4, 2022.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve Virginia Electric and Power Company of the responsibility to comply with all other local, state, and federal permit regulations.

To review any federal rules referenced in the attached permit, the US Government Publishing Office maintains the text of these rules at the CFR website, Title 40, Part 72.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact the regional office at (804) 527-5020.

Sincerely,

Kyle Ivar Winter, P.E.
Deputy Regional Director

JEK/AMS/52525_06_2021 draft initial TV permit.docx
Attachment: Permit

cc: EPA, Region III,
Piedmont Regional Air Compliance Inspector

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Article 3
Federal Operating Permit

This permit is based upon federal Clean Air Act acid rain permitting requirements of Title IV, federal operating permit requirements of Title V and Chapter 80, Article 3 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13: 10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, 9VAC5-80-360 through 9VAC5-80-700 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Virginia Electric & Power Company
Facility Name:	Dominion Energy - Greensville County Power Station
Facility Location:	2500 Rogers Rd. Emporia, VA
Registration Number:	52525
Permit Number:	PRO-52525

This permit includes the following programs: Federally Enforceable Requirements - Clean Air Act, Title IV Acid Rain Program

_____
Effective Date

_____
Expiration Date

_____
Deputy Regional Director Signature

_____
Signature Date

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Facility Information

Permittee
Virginia Electric and Power Company
DBA: Dominion Energy – Greensville County Power Station
120 Tredegar Street
Richmond, VA 23219

Responsible Official
Mr. Robert W. Sauer
Vice President System Operations

Acid Rain Designated Representative
Mr. Robert W. Sauer
Vice President System Operations

Facility
Dominion Energy - Greensville County Power Station
2500 Rogers Rd.
Emporia, VA 23847

Contact Person
Ms. Marleen Gillespie
Environmental Consultant, Environmental Services
(803) 217-8627

State-County-Plant Identification Number: 51-081-52525
ORIS Code: 59913

Facility Description: NAICS 221112 – Fossil fuel electric power generation facility. The facility is a nominal 1600 MW combined-cycle electrical power generating facility utilizing three combustion turbines each with a duct-fired heat recovery steam generator (HRSG) with a common reheat condensing steam turbine generator (3 on 1 configuration). The fuel for the turbines and duct burners is pipeline-quality natural gas. A natural gas-fired auxiliary boiler, three fuel gas heaters, an auxiliary equipment cooler, four inlet chillers, an emergency diesel fire water pump, three emergency generators, several electrical circuit breakers, and a distillate fuel tank are constructed at this source.

Emission Units

Process equipment to be operated consists of

Fuel Burning Equipment

Emission Unit ID	Emission Unit Description	Nominal Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
CT-1	MHPS M501J combustion turbine generator with duct burner (natural gas-fired)	3,227 MMBtu/hr CT 500 MMBtu/hr DB	Selective Catalytic Reduction Oxidation Catalyst	SCR-1 OXCat-1	NOx CO, VOC	July 2, 2021
CT-2	MHPS M501J combustion turbine generator with duct burner (natural gas-fired)	3,227 MMBtu/hr CT 500 MMBtu/hr DB	Selective Catalytic Reduction Oxidation Catalyst	SCR-2 OXCat-2	NOx CO, VOC	July 2, 2021
CT-3	MHPS M501J combustion turbine generator with duct burner (natural gas-fired)	3,227 MMBtu/hr CT 500 MMBtu/hr DB	Selective Catalytic Reduction Oxidation Catalyst	SCR-3 OXCat-3	NOx CO, VOC	July 2, 2021
B-1	Auxiliary Boiler (natural gas-fired)	183.0 MMBtu/hr	None	None	None	July 2, 2021
FGH-4, 5, 6	Three Fuel Gas Heaters (natural gas-fired)	7.8 MMBtu/hr each	None	None	None	July 2, 2021

Other Equipment

Emission Unit ID	Emission Unit Description	Nominal Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG-1	Emergency Generator (diesel)	2500 kW	None	None	None	July 2, 2021
EG-2&3	Two Emergency Generator (propane)	150 kW (230 hp) each	None	None	None	July 2, 2021
FWP-1	Fire Water Pump (diesel)	460 bhp	None	None	None	July 2, 2021

Emission Unit ID	Emission Unit Description	Nominal Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
DC-1 (AEC-1)	Delugeable Auxiliary Equipment Cooler	180,000 gallons of water/hr	None	None	None	July 2, 2021
IC-1 thru 4 (CH-1 thru 4)	Four Turbine Inlet Air Chillers (mechanical draft cooling towers)	581,400 gallons of water/hr each	None	None	None	July 2, 2021
CB-1 thru CB-10	Ten Electrical Circuit Breakers	1,445 lbs SF_6 per breaker	None	None	None	July 2, 2021
CB-11 thru CB-13	Three Generator Circuit Breakers	146 lbs SF_6 per breaker	None	None	None	July 2, 2021
FUG-1	Fugitive equipment leaks from natural gas piping components	-	None	None	None	July 2, 2021

*The Size/Rated capacity is provided for informational purposes only and is not an applicable requirement.

Fuel Burning Equipment Requirements - Combined-cycle gas turbine generators and duct-fired HRSG

(CT-1, CT-2, CT-3)

Limitations

1. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations -** Nitrogen oxide (NO_x) emissions from each of the combined cycle gas turbine generators and associated duct-fired heat recovery steam generators (HRSG) (CT-1, CT-2, CT-3) shall be controlled by dry, low NO_x burners and selective catalytic reduction (SCR) with a NOx performance of 2.0 ppmvd at 15% O_2. The low NO_x burners shall be installed and operated in accordance with manufacturer's specifications. The SCR shall be provided with adequate access for inspection and shall be in operation when the combined cycle gas turbine generators are operating (at all times except during startup and shutdown, as defined in Condition 7).
(9VAC5-80-490 and Condition 1 of the July 2, 2021 Permit)

2. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** Carbon monoxide (CO) emissions from each of the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) shall be controlled by an oxidation catalyst and good combustion practices (eg., controlled fuel/air mixing, adequate temperature, and gas residence time). The oxidation catalyst shall be provided with adequate access for inspection and shall be in operation when the combined cycle gas turbine generators are operating (at all times except during startup and shutdown, as defined in Condition 7).
(9VAC5-80-490 and Condition 3 of the July 2, 2021 Permit)

3. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** Volatile organic compound (VOC) emissions from each of the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) shall be controlled by an oxidation catalyst and good combustion practices (eg., controlled fuel/air mixing, adequate temperature, and gas residence time). The oxidation catalyst shall be provided with adequate access for inspection and shall be in operation when the combined cycle gas turbine generators are operating (at all times except during startup and shutdown, as defined in Condition 7).
(9VAC5-80-490 and Condition 4 of the July 2, 2021 Permit)

4. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** Sulfur dioxide (SO_2) and sulfuric acid mist (H_2SO_4) emissions from each of the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) shall be controlled by the use of pipeline-quality natural gas with a maximum sulfur content of 0.4 grains per 100 standard cubic feet (scf), on a 12-month rolling average.
(9VAC5-80-490 and Condition 6 of the July 2, 2021 Permit)

5. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** Particulate Matter (PM_{10}, $PM_{2.5}$) emissions from each of the combined cycle gas turbine

generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) shall be controlled by good combustion practices (eg., controlled fuel/air mixing, adequate temperature, and gas residence time) and the use of pipeline-quality natural gas with a maximum sulfur content of 0.4 grains per 100 standard cubic feet (scf), on a 12-month rolling average. (9VAC5-80-490 and Condition 7 of the July 2, 2021 Permit)

6. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** Greenhouse gas emissions (including carbon dioxide, methane, and nitrous oxide), as CO_2e from the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) shall be controlled by the use of low carbon fuel (natural gas) and high efficiency design and operation of the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3 and steam turbine generator). The efficiency of the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3 and steam turbine generator) at full load without duct burning, corrected to ISO conditions, and providing for incremental degradation of the units, shall not exceed the following:

	Btu/kWh net (HHV) output
Initial Test	6,457
Year 6 (2024)	6,583
Year 12 (2030)	6,709
Year 18 (2036)	6,835
Year 24 (2042)	6,961
Year 30 (2048)	7,087
Year 31 (2049) and later	7,212

Compliance with this limit shall be demonstrated as contained in Condition 29. The Year is defined in Condition 13.
(9VAC5-80-490 and Condition 8 of the July 2, 2021 Permit)

7. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** The permittee shall comply with the requirements of this permit at all times except where noted by a specific condition. For the purpose of this permit, this condition defines startup and shutdown operating scenarios for the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3).

   a. Startup periods are defined as follows:

      i. For the purpose of this permit, startup is defined as the period of time beginning the first fuel feed after a shutdown event and ending at the earlier of the unit (CT-1, CT-2, or CT-3) reaching 50 percent load or the following time:

      ii. For Cold Startup defined as restarts made 72 hours or more after shutdown, startup periods shall not exceed 436 minutes per occurrence.

      iii. For Warm Startup defined as restarts made more than 8 but less than 72 hours after shutdown, startup periods shall not exceed 166 minutes per occurrence.

iv. For Hot Startup restarts made 8 hours or less after shutdown, startup periods shall not exceed 84 minutes per occurrence.

v. If the SCR was not engaged during startup of a particular combustion turbine (including ammonia injection), the subsequent startup of that turbine shall be a cold start.

b. For the purpose of this permit, shutdown is defined as the period of time beginning when the unit (CT-1, CT-2, or CT-3) falls and remains below 50 percent load until the cessation of fuel feeding, not to exceed 30 minutes; or the 30 minutes of operation directly preceding the cessation of fuel feeding, whichever is shorter.

c. The permittee shall operate the CEMS during periods of startup and shutdown.

d. The permittee shall record the time, date and duration of each startup and shutdown event. The records must include calculations of NO_x and CO emissions during each event based on the CEMS data. These records must be kept for five years following the date of such event.

e. During startup, the combustion turbine SCR system, including ammonia injection, and oxidation catalyst shall be operated in a manner to minimize emissions, as technologically feasible, and following the SCR manufacturer's written protocol or best engineering practices for minimizing emissions. Where best practices are used, the permittee shall maintain written documentation explaining the sufficiency of such practices. If such practices are used in lieu of the manufacturer's protocol, the documentation shall justify why the practices are at least equivalent to manufacturer's protocols with respect to minimizing emissions.

f. The permittee shall operate the facility so as to minimize the frequency and duration of startup and shutdown events.

(9VAC5-80-490 and Condition 9 of the July 2, 2021 Permit)

8. **Alternate Operating Scenario: Turbine Generators - Tuning –** The permitee shall comply with the requirements of this permit at all times except where noted by a specific condition. For the purpose of this permit, this condition defines the tuning operating scenario for the combined cycle gas turbine generators and associated HRSG (CT-1, CT-2, CT-3).

a. For the purpose of this permit, tuning is defined as the manipulation of the units and the associated emission controls by a qualified professional to ensure optimized operation and minimized emissions.

b. No tuning event shall last more than 18 consecutive hours.

c. Annual tuning events shall be limited to 96 hours per CT per 12-month rolling period.

d. The permittee shall notify the Piedmont Regional Air Compliance Manager at the address below, or by email, 24 hours prior to each declared CT tuning event unless approval for a shorter notice is given by DEQ. The notification shall include, but is not limited to, the following information:

i. Identification of the specific CT to be tuned.

ii. Reason for the declared tuning event

iii. Measures that will be taken to minimize the length of the declared tuning event.

iv. Justification why the person performing the tuning is qualified.

DEQ Regional Air Compliance Manager
Piedmont Regional Office
4949-A Cox Rd.
Glen Allen, VA 23060

e. The permittee shall furnish a report to the Regional Air Compliance Manager at the address above (or by electronic submission), including all pertinent facts concerning any declared tuning event, as soon as practicable but not less than 14 business days after the retuning event. The notification shall include, but is not limited to, the following information:

i. Identification of the CT that was tuned.

ii. The date and time of commencement and completion of the declared tuning events.

iii. NO_x and CO emissions during the declared tuning events.

f. NO_x and CO emissions during CT tuning events shall be recorded and included in the associated quarterly excess emission report if the applicable emission limits are exceeded. Emissions during tuning shall be included in the facility-wide total.

(9VAC5-80-490 and Condition 10 of the July 2, 2021 Permit)

9. **Alternate Operating Scenario: Turbine Generators – On-line Water Wash –**The permittee shall comply with the requirements of this permit at all times except where noted by a specific condition. For the purpose of this permit, this condition defines the on-line water wash operating scenario for the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3).

a. On-line water washing is defined as spraying water through the turbine while a unit (CT-1, CT-2, CT-3) is operating

b. No on-line water wash event shall last for more than 60 minutes in a calendar day.

c. Annual on-line water wash events shall not exceed 52 hours per CT per 12-month rolling period.

d. The permittee shall notify the Piedmont Regional Air Compliance Manager at the address below, or by email, 24 hours prior to each declared on-line CT water wash event unless approval for a shorter notice is given by DEQ. The notification shall include, but is not limited to, the following information:

i. Identification of the specific CT to be washed.

ii. Reason for the declared washing event

DEQ Regional Air Compliance Manager
Piedmont Regional Office
4949-A Cox Rd.
Glen Allen, VA 23060

e. The permittee shall furnish a report to the Regional Air Compliance Manager at the address above (or by electronic submission), including all pertinent facts concerning the declared on-line water wash event, as soon as practicable but not less than 14 business days after the declared on-line water wash event. The notification shall include, but is not limited to, the following information:

   i. Identification of the CT that was washed.

   ii. The date and time of commencement and completion of the declared on-line water wash event.

   iii. NO_x and CO emissions during the declared on-line water wash event.

f. NO_x and CO emissions during each declared CT on-line water wash event shall be recorded and included in the associated quarterly excess emission report if the applicable emission limits are exceeded. Emissions during on-line water wash events shall be included in the facility-wide total.

(9VAC5-80-490 and Condition 11 of the July 2, 2021 Permit)

10. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations** - The approved fuel for the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) is pipeline quality natural gas with a maximum sulfur content of 0.4 grains per 100 scf on a 12-month rolling average basis. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-490 and Condition 25 of the July 2, 2021 Permit)

11. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations -**The three combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) combined shall consume no more than a total of 97,948.2 x 10^6 scf of natural gas per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-490 and Condition 26 of the July 2, 2021 Permit)

12. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) -** Limitations - Emissions from the operation of each combined-cycle gas turbine generator and associated HRSG duct burner (CT-1, CT-2, CT-3), shall not exceed the limits specified below:

    a. Normal operation – Unless otherwise specified, the limits in this paragraph apply during all operation except for periods considered startup and shutdown as defined in

Condition 7 of this permit, and alternate operating scenarios as defined in Conditions 8 and 9.

Pollutant	Short term emission limits
PM_{10} (including condensable PM)	0.0030 lb/MMBtu and 9.2 lb/hr as an average of three test runs without duct burner firing 0.0039 lb/MMBtu and 14.1 lb/hr as an average of three test runs with duct burner firing.
$PM_{2.5}$ (including condensable PM)	0.0030 lb/MMBtu and 9.2 lb/hr as an average of three test runs without duct burner firing 0.0039 lb/MMBtu and 14.1 lb/hr as an average of three test runs with duct burner firing.
Sulfur dioxide	0.00114 lb/MMBtu (this limit applies at all times)
Nitrogen Oxides (as NO_2)	2.0 ppmvd @ 15% O_2 as a one-hour average with or without duct burning
Carbon monoxide	1.0 ppmvd @ 15% O_2 as a three-hour rolling average without duct burning 1.6 ppmvd @ 15% O_2 as a three-hour rolling average with duct burning
Volatile organic compounds	0.7 ppmvd @ 15% O_2 without duct burner firing 1.4 ppmvd @ 15% O_2 with duct burner firing
Sulfuric acid mist	0.00053 lb/MMBtu without duct burner firing 0.00060 lb/MMBtu with duct burner firing (These limits apply at all times)

Where:
ppmvd = parts per million by volume on a dry gas basis, corrected to 15 percent O_2.

Short-term emission limits represent averages for a three-hour sampling period for CO, VOC, SO_2 and H_2SO_4. Nitrogen oxides shall be calculated as a one-hour average. PM_{10} and $PM_{2.5}$ limits represent the average of three test runs.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these limits may be determined as stated in Conditions 1, 2, 3, 4, 16, 17, 18, and 26.

b. During each CT (CT-1, CT-2 and CT-3) tuning event or on-line water wash event, emissions shall not exceed the following limits. Operating periods considered tuning are defined in Condition 8. Operating periods considered on-line water washes are defined in Condition 9.

Pollutant	Limitations for Maintenance Activities (Tuning/Water Washing)
NO_x	Tuning or water washing: 648 lb/turbine/calendar day
CO	Tuning or water washing: 436 lb/turbine/calendar day

The emissions limits for tuning and on-line water wash events do not include emissions from startup and/or shutdown that may occur on the same calendar day.

c. NO_x emission concentrations shall not exceed the NO_x standards of the NSPS Subpart KKKK of 15 ppm at loads > 75% or 96 ppm at loads ≤ 75% corrected to 15% O_2 (on a rolling 30-day average basis).

d. During each startup or shutdown event, emissions shall not exceed the following:

Pollutant	Startup/Shutdown Limitations
NO_x	cold start event - 1,231 lb/turbine warm start event - 395 lb/turbine hot start event - 148 lb/turbine shutdown event - 65 lb/turbine
CO	cold start event - 6,944 lb/turbine warm start event - 3,316 lb/turbine hot start event - 1,771 lb/turbine shutdown event - 1,004 lb/turbine

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these limits may be determined as stated in Conditions 7 and 18.
(9VAC5-80-490 and Condition 38 of the July 2, 2021 Permit)

13. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** CO_2e emissions from the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) and the steam turbine, providing for incremental degradation of the units, shall not exceed the following:

Degradation Period	Applicable limit in lb CO_{2e}/MWh net output
Years 1-6 (2018-2024)	812
Years 7-12 (2025-2030)	828
Years 13-18 (2031-2036)	843
Years 19-24 (2037-2042)	859
Years 25-30 (2043-2048)	875
Years 31 (2049) and later	890

For the purposes of determining which limit is applicable, Year 1 begins upon commencement of commercial operation and ends on December 31 of the first full calendar year after that date. Each limit increments on January 1 of the respective year. For example, if the facility commences commercial operation on April 15, 2018, Year 1 begins on April 15, 2018 and ends on December 31, 2019. Year 7 begins, and the increased limit becomes effective, on January 1, 2025.

Compliance with the applicable limit shall be calculated monthly on a 12- month rolling basis. The applicable limit applies at all times. Compliance shall be determined each month by summing the calculated CO_2e emissions from the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) during the previous 12

months and dividing that value by the sum of the plant net electrical energy output over that same period.
(9VAC5-80-490 and Condition 39 of the July 2, 2021 Permit)

14. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations –** Emissions from the operation of each of the three combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) shall not exceed the limits specified below:

Pollutant	Annual Limit	Averaging time
PM_{10} (including condensable)	61.5 tons/year	(on a 12-month, rolling total)
$PM_{2.5}$ (including condensable)	61.5 tons/year	(on a 12-month, rolling total)
Sulfur Dioxide	18.7 tons/year	(on a 12-month, rolling total)
Nitrogen Oxides (as NO_2)	118.3 tons/year	(on a 12-month, rolling total)
Carbon Monoxide	286.0 tons/year	(on a 12-month, rolling total)
Volatile Organic Compounds	214.8 tons/year	(on a 12-month, rolling total)
Sulfuric Acid Mist	9.9 tons/year	(on a 12-month, rolling total)
CO_2e	1,911,596 tons/year	(on a 12-month, rolling total)

These emissions are derived from the estimated overall emission contribution from operating limits, including periods of startup and shutdown. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 3, 4, 5, 6, 11, 15, 18, 22, 26, 27, 28, and 29.
(9VAC5-80-490 and Condition 40 of the July 2, 2021 Permit)

15. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Limitations -** Visible emissions from the combined cycle gas turbine generators and associated duct-fired HRSG (CT-1, CT-2, CT-3) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A.
(9VAC5-80-490 and Condition 47 of the July 2, 2021 Permit)

Monitoring

16. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring -** Each SCR system shall be equipped with devices to continuously measure, or allow calculation of, and record ammonia feed rate and catalyst bed inlet gas temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures that shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the SCR system is operating. To ensure good performance of the SCR, the devices used to continuously measure the ammonia feed rate and catalyst bed inlet temperature on the SCR shall be monitored by the permittee.
(9VAC5-80-490 and Condition 2 of the July 2, 2021 Permit)

17. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring -** Each oxidation catalyst shall be equipped with a device to continuously measure and record

temperature at the catalyst bed inlet and outlet. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures that shall include, at a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the oxidation catalyst is operating. To ensure good performance of the oxidation catalyst system, the device used to continuously measure and record the catalyst bed inlet and outlet gas temperature on the oxidation catalyst shall be monitored by the permittee.
(9VAC5-80-490 and Condition 5 of the July 2, 2021 Permit)

18. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring -** Continuous Emission Monitoring Systems (CEMS) shall be installed to measure and record the emissions of NO_x (measured as NO_2), CO_2 and CO from each combined cycle combustion turbine and associated duct-fired HRSG (CT-1, CT-2, CT-3) in ppmvd, corrected to 15 percent O_2. CEMS for NO_x shall meet the design specifications of 40 CFR Part 75 whereas CEMS for CO shall be installed, evaluated, and operated according to the monitoring requirements in 40 CFR 60.13. The CEMS shall also measure and record the oxygen content of the flue gas at each location where NO_x and CO emissions are monitored and measure heat input and power output. A CEMS or alternative method as allowed by 40 CFR 75 shall be used to measure sulfur dioxide emissions to comply with the requirements of 40 CFR 75 (acid rain program monitoring). For compliance with the emission limits contained in Condition 12.a, CO_2 and NO_x data shall be reduced to 1-hour block averages. CO data shall be reduced to 3-hour rolling averages.
(9VAC5-80-490 and Condition 51 of the July 2, 2021 Permit)

19. **Fuel Burning Equipment – (CT-1, CT-2, CT-3) - Continuous Metering:** Net Power Output – The permittee shall continuously monitor the plant net electrical energy output to show compliance with the emission limit in Condition 13 on a 12-month rolling basis.
(9VAC5-80-490)

20. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring -** Performance evaluations of the NO_x, and, if applicable, SO_2 CEMS shall be conducted in accordance with 40 CFR Part 75, Appendix A, and shall take place during the performance tests under 9 VAC 5-50-30 or within 30 days thereafter. Two copies of the performance evaluations report shall be submitted to the Piedmont Regional Office within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30-day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the Piedmont Regional Office.
(9VAC5-80-490 and Condition 53 of the July 2, 2021 Permit)

21. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring** - A CEMS quality control program which is equivalent to the requirements of 40 CFR 75 Appendix B shall be implemented for all continuous monitoring systems.
(9VAC5-80-490 and Condition 55 of the July 2, 2021 Permit)

22. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring** – For the purposes of this permit and DEQ's emissions inventory, CEMS data shall be used to report annual emissions of NO_x, CO and CO_2 from the stack of each combined cycle combustion turbine and associated duct-fired HRSG (CT-1, CT-2, CT-3) in tons/yr.
(9VAC5-80-490 and Condition 56 of the July 2, 2021 Permit)

23. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring NOx -** For the purpose of this permit, periods of excess emissions and monitor downtime that must be reported under Condition 32 are defined as follows:

    a. An excess emission period is a normal unit operating period (does not apply to startup, shutdown, malfunction, or alternative operating scenarios) in which the average one-hour NO_x emission rate exceeds the applicable emission limit in Condition 12.a; and

    b. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO concentration, O_2 concentration, fuel flow rate, steam pressure, or megawatts. The steam flow rate is only required if the permittee uses this information for compliance purposes.

    (9VAC5-80-490 and Condition 57 of the July 2, 2021 Permit)

24. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring SO_2 -** Excess emissions and monitoring downtime are defined, for the purpose of this permit, as follows:

    a. For samples of gaseous fuel obtained using daily sampling or for proportional sampling, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit; and

    b. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

    (9VAC5-80-490 and Condition 58 of the July 2, 2021 Permit)

25. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Monitoring** – For purposes of identifying excess emissions:

a. All CEMS data must be reduced to hourly averages as specified in 40 CFR 60.13(h);

b. For each operating hour in which a valid hourly average, as described in 40 CFR 60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm, using the appropriate equation in 40 CFR Part 60, Appendix A, Method 19. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2, a diluent cap value of 19.0 percent O_2 may be used in the emission calculations; and

c. Only quality assured data from the CEMS shall be used to identify excess emissions. Periods where the missing data substitution procedures in 40 CFR 75, Subpart D are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR 60.7(c).

(9VAC5-80-490 and Condition 60 of the July 2, 2021 Permit)

Testing

26. **Fuel Burning Equipment Requirements – (CT-1, CT-2, CT-3) – Periodic Testing – Continuing Compliance: Combustion Turbines –** The permittee shall conduct additional performance tests for VOC, PM_{10} and $PM_{2.5}$ from the combustion turbines (CT-1, CT-2, CT-3) to demonstrate compliance with the emission limits contained in this permit. The tests shall occur no less than 54 months and no more than 66 months after the previous test. The details of the tests shall be arranged with the Piedmont Regional Office. (9VAC5-80-490 and Condition 61 of the July 2, 2021 Permit)

27. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Testing –** The permittee shall determine the total sulfur content of the natural gas being fired at the electric power generation facility to verify that the sulfur content of the natural gas is less than or equal to 0.4 grains of total sulfur per 100 scf on a 12-month rolling average in order to demonstrate that potential sulfur dioxide and sulfuric acid mist emissions shall not exceed the limits specified in Condition 12.a for the combustions turbines (CT-1, CT-2, CT-3). The permittee shall demonstrate compliance with the sulfur content limit in Condition 10 using one of the following:

a. Use the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying the total sulfur content.

b. Determine and record the total sulfur content of the natural gas each month. A monthly sample is not required for months when the turbines operated for 48 hours or less, or

c. Develop custom schedules for determination of the sulfur content of the natural gas based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 CFR 60.4370(c)(1) and (c)(2), custom schedules shall be substantiated with data and shall receive prior EPA approval.

(9VAC5-80-490 and Condition 27 of the July 2, 2021 Permit)

28. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) – Testing: Annual Performance Test –** Annual performance tests shall be conducted on each combustion

turbine and associated duct burner (CT-1, CT-2, CT-3) for SO_2 to determine compliance with the limits contained in Condition 12. The permittee may use one of the following three methods (a., b. or c. below) to conduct the performance test:

a. If the permittee chooses to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see 40 CFR 60.17 or by manual sampling using the Gas Process Association Standard 2166) for natural gas. The fuel analyses may be performed either by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. The samples for the total sulfur content of the fuel shall be analyzed using ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D5504, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR 60.17).

b. 40 CFR 60, Appendix A, Methods 6, 6C, 8, or 20 shall be used to measure the SO_2 concentration (in parts per million (ppm)). In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19–10–1981–Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide (incorporated by reference, see 40 CFR 60.17) can be used instead of EPA Methods 6 or 20.

c. 40 CFR 60, Appendix A, Methods 6, 6C, or 8 and 3A, or 20 shall be used to measure the SO_2 and diluent gas concentrations. In addition, the permittee may use the manual methods for sulfur dioxide ASME PTC 19–10–1981–Part 10 (incorporated by reference, see 40 CFR 60.17).

The tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Piedmont Regional Office, within 45 days after test completion and shall conform to the test report format enclosed with this permit. If fuel sampling is used, as described in 28.a above, no test protocol or test report is required, however the permittee shall notify the Piedmont Regional Office as to which method was used to determine the total sulfur content of the fuel sample.
(9VAC5-80-490 and Condition 62 of the July 2, 2021 Permit)

29. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) – Testing –** The permittee shall conduct subsequent heat rate testing of the power blocks (i.e., a combination of CT-1, CT-2, and CT-3 and the steam turbine generator) in accordance with ASME Performance Test Code on Overall Plant Performance (ASME PTC 46) or equivalent method approved by the Piedmont Regional Office to show compliance with the applicable heat rate contained in Condition 6 in Years 6 (2024), 12 (2030), 18 (2036), 24 (2042), and 30 (2048). After Year 30 (2048), additional tests shall be conducted between 60 and 73 months after the previous test. Testing shall be conducted when combusting natural gas without duct burning. The details of the evaluation are to be arranged with the

Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Piedmont Regional Office within 45 days of test completions and shall confirm to the test report format enclosed with this permit.
(9VAC5-80-490 and Condition 63 of the July 2, 2021 Permit)

NSPS Subpart KKKK Requirements

30. **Requirements by Reference -** Except where this permit is more restrictive than the applicable requirement, the NSPS Subpart KKKK equipment (Combustion Turbines, CT-1, CT-2, CT-3) shall be operated in compliance with the requirements of 40 CFR 60, Subpart KKKK.

Unit	Pollutant	Emission Limit	Compliance	Monitoring	Reporting	Testing
CT-1, CT-2, CT-3	NOx	60.4325	60.4333	60.4340 through 60.4350	60.4375, 60.4380, 60.4395	60.4400, 60.4405
CT-1, CT-2, CT-3	SO_2	60.4330	60.4333	60.4365 through 60.4370	60.4375, 60.4385, 60.4395	60.4415

(9VAC5-80-490, 40 CFR 60 Subpart KKKK, and Condition 37 of the July 2, 2021 Permit)

Recordkeeping and Reporting

31. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) - Recordkeeping -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Region. These records shall include, but are not limited to:

    a. Monthly and annual throughput of natural gas to the three combustion turbines and associated duct burners (CT-1, CT-2, CT-3), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

    b. Time, date and duration of each startup, shutdown, and malfunction period for each combustion turbine and associated duct burner (CT-1, CT-2, CT-3), and resulting emissions;

    c. Fuel quality records for natural gas combusted in the combustion turbine and associated duct burner (CT-1, CT-2, CT-3);

    d. Monthly emissions calculations for PM_{10}, $PM_{2.5}$ and VOC from the combined cycle combustion turbines and associated duct burners (CT-1, CT-2, CT-3) using calculation methods approved by the Piedmont Regional Office to verify compliance with the ton/yr emissions limitations in Condition 14;

    e. Monthly and annual records of plant net electrical energy output used in the demonstrations of compliance required in Condition 13;

f. Monthly and annual emissions of CO_2 and CO_2e, calculated monthly as the sum of each consecutive 12-month period;

g. Monthly and annual calculations of CO_2e emission rates (lb/MWh net) to demonstrate compliance with the requirements of Condition 13. Compliance for the consecutive 12-month period shall be demonstrated monthly as required in Condition 13;

h. Continuous monitoring system emissions data, calibrations and calibration checks, percent operating time, and excess emissions;

i. Operation and control device monitoring records for each SCR system and oxidation catalyst as required in Conditions 16 and 17;

j. Records of alternative operating scenarios as required by Conditions 8 and 9;

k. Any malfunction of the air pollution control equipment, or any periods during which a continuous emission monitoring system is inoperative;

l. Scheduled and unscheduled maintenance, and operator training.

m. Results of all stack tests, power block heat rate tests, visible emission evaluations, and performance evaluations.

n. Manufacturer's instructions for proper operation of equipment.

(9VAC5-80-490 and Condition 65 of the July 2, 2021 Permit)

32. **Fuel Burning Equipment Requirements - (CT-1, CT-2, CT-3) – Reporting** - The permittee shall furnish reports to the Piedmont Regional Office of excess emissions from any process monitored by a continuous monitoring system (CEMS) on a quarterly basis, postmarked (or electronically submitted) no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:

a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

e. Excess emission reports for sulfur dioxide and nitrogen dioxide as required in 40 CFR 60.4395.

(9VAC5-80-490 and Condition 59 of the July 2, 2021 Permit)

Fuel Burning Equipment Requirements- Auxiliary boiler and fuel gas heaters
(B-1, FGH-4 through FGH-6)

Limitations

33. **Fuel Burning Equipment Requirements - (B-1, FGH-4 through FGH-6) - Limitations** – NO_x emissions from the auxiliary boiler (B-1) and three fuel gas heaters (FGH-4 through FGH-6) shall be controlled by ultra low-NO_x burners with a NO_x performance of 0.011 lbs/MMBtu (equivalent to 9 ppmvd at 3% O_2). The ultra-low NO_x burners shall be installed and operated in accordance with manufacturer's specifications.
(9VAC5-80-490 and Condition 12 of the July 2, 2021 Permit)

34. **Fuel Burning Equipment Requirements - (B-1, FGH-4 through FGH-6) - Limitations –** CO and VOC emissions from the auxiliary boiler (B-1) and three fuel gas heaters (FGH-4 through FGH-6) shall be controlled by good combustion practices, operator training, and proper emissions unit design, construction and maintenance to achieve the following the following maximum emission rates:

Unit	CO Emission Limit	VOC Emission limit
B-1	0.035 lb/MMBtu (50 ppmvd at 3% O_2)	0.005 lb/MMBtu
FGH-4 through FGH-6	0.037 lb/MMBtu (50 ppmvd at 3% O_2)	0.005 lb/MMBtu

Boiler and heater operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at a minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler and heater. These procedures shall be based on the manufacturer's recommendations, at a minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9VAC5-80-490 and Condition 13 of the July 2, 2021 Permit)

35. **Fuel Burning Equipment Requirements - (B-1, FGH-4 through FGH-6)- Limitations –** SO_2 and H_2SO_4 emissions from the auxiliary boiler (B-1) and three fuel gas heaters (FGH-4 through FGH-6) shall be controlled by the use of pipeline-quality natural gas with a maximum sulfur content of 0.4 grains per 100 standard cubic feet (scf), on a 12-month rolling average. Compliance shall be based on fuel monitoring results as required by Condition 27.
(9VAC5-80-490 and Condition 14 of the July 2, 2021 Permit)

36. **Fuel Burning Equipment Requirements - (B-1, FGH-1 through FGH-6) - Limitations** – PM_{10} and $PM_{2.5}$ emissions from the auxiliary boiler (B-1) and three fuel gas heaters (FGH-4 through FGH-6) shall be controlled by good combustion practices and the use of

pipeline-quality natural gas with a maximum sulfur content of 0.4 grains per 100 scf, on a 12-month rolling average.
(9VAC5-80-490 and Condition 15 of the July 2, 2021 Permit)

37. **Fuel Burning Equipment Requirements - (B-1, FGH-4 through FGH-6) - Limitations** – CO_2e from the auxiliary boiler (B-1) and three fuel gas heaters (FGH-4 through FGH-6) shall be controlled by the use of natural gas fuel and high efficiency design and operation.
(9VAC5-80-490 and Condition 16 of the July 2, 2021 Permit)

38. **Fuel Burning Equipment Requirements - (B-1, FGH-4 through FGH-6) - Limitations -** The approved fuel for the fuel gas heaters (FGH-4 through FGH-6) and the auxiliary boiler (B-1) is pipeline quality natural gas with a maximum sulfur content of 0.4 grains per 100 scf. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-490 and Condition 25 of the July 2, 2021 Permit)

39. **Fuel Burning Equipment Requirements - (B-1) - Limitations -**The auxiliary boiler (B-1) shall consume no more than 1.57×10^9 scf of natural gas per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-490 and Condition 28 of the July 2, 2021 Permit)

40. **Fuel Burning Equipment Requirements - (FGH-4 through FGH-6)- Limitations** - The three 7.8 MMBtu/hr fuel gas heaters (FGH-4 through FGH-6) combined shall consume no more than a total of 201×10^6 scf of natural gas per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-490 and Condition 36 of the July 2, 2021 Permit)

41. **Fuel Burning Equipment Requirements - (B-1) - Limitations** – Emissions from the operation of the auxiliary boiler (B-1) shall not exceed the limits specified below:

Pollutant	Short term limit	Annual limit
PM_{10} (Total)	1.3 lbs/hr	5.7 tons/yr (on a 12-month, rolling total)
$PM_{2.5}$ (Total)	1.3 lbs/hr	5.7 tons/yr (on a 12-month, rolling total)
Sulfur Dioxide	0.00114 lbs/MMBtu	1.0 ton/yr (on a 12-month, rolling total)
Nitrogen Oxides (as NO_2)	0.011 lbs/MMBtu On a 30-day rolling average	8.9 tons/yr (on a 12-month, rolling total)
Carbon Monoxide	0.035 lbs/MMBtu	28.4 tons/yr (on a 12-month, rolling total)
Volatile Organic Compounds	0.005 lbs/MMBtu	4.1 tons/yr (on a 12-month, rolling total)
CO_2e	-	93,859 tons/yr (on a 12-month, rolling total)

These emissions are derived from the estimated overall emission contribution from operating limits, including periods of startup and shutdown. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits.

Compliance with these emission limits may be determined as stated in Conditions 33, 34, 35, 36, 37, 38, 39, 43, and 44.
(9VAC5-80-490 and Condition 41 of the July 2, 2021 Permit)

42. **Fuel Burning Equipment Requirements - (FGH-4 through FGH-6) - Limitations –** Emissions from the operation of each of the fuel gas heaters (FGH-4 through FGH-6) shall not exceed the limits specified below:

	PM_{10}	$PM_{2.5}$	Nitrogen Oxides (as NO_2)	Carbon Monoxide	Volatile Organic Compounds	CO_2e
FGH-4 through FGH-6	0.007 lb/MMBtu	0.007 lb/MMBtu	0.011 lb/MMBtu	0.037 lb/MMBtu	0.005 lb/MMBtu	-
	0.3 tons/yr	0.3 tons/yr	0.4 tons/yr	1.3 tons/yr	0.2 tons/yr	4,001 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits, including periods of startup and shutdown. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 33, 34, 35, 36, 37, 38, 40, and 43.
(9VAC5-80-490 and Condition 46 of the July 2, 2021 Permit)

43. **Fuel Burning Equipment Requirements - (B-1, FGH-4 through FGH-6) - Limitations** - Visible emissions from the fuel gas heaters (FGH-4 through FGH-6) and auxiliary boiler (B-1) shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC5-80-490 and Condition 48 of the July 2, 2021 Permit)

Monitoring

44. **Fuel Burning Equipment Requirements - (B-1) – Monitoring NOx -** Compliance with the Auxiliary Boiler (B-1) NOx emission limits in Condition 41 shall be determined by one of the following methods:

a. CEMS shall be installed to measure and record the emissions of NO_x (measured as NO_2) from the auxiliary boiler (B-1) in lb/MMBtu as described in 40 CFR 60.48b(b). The CEMS shall also measure and record the oxygen content (or CO_2 emissions) of the flue gas. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13 of NSPS Subpart A, and Appendices B and F, or as approved by the Piedmont Regional Office.

b. If Virginia DEQ approves an operational monitoring plan for the Auxiliary Boiler (B-1), as provided by 40 CFR 60.48b (g) (2) and 60.49b (c), rather than using a continuous emissions monitoring system for NO_x, the permittee shall conduct performance tests for NO_x and monitor the operating conditions during testing to develop a plan to predict NOx emissions from the boiler.

For compliance with the emission limit contained in Condition 41, NO_x data shall be reduced to a 30-day rolling average basis using procedures approved by the Piedmont Regional Office.
(9VAC5-80-490 and Condition 52 of the July 2, 2021 Permit)

45. **Fuel Burning Equipment Requirements - (B-1) – Monitoring -** Performance evaluations of the NO_x CEMS shall be conducted in accordance with applicable performance specifications of 40 CFR Part 60, Appendix B, and shall take place during the performance tests under 9 VAC 5-50-30 or within 30 days thereafter. Two copies of the performance evaluations report shall be submitted to the Piedmont Region within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30-day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the Piedmont Region.
(9VAC5-80-490 and Condition 54 of the July 2, 2021 Permit)

46. **Fuel Burning Equipment Requirements - (B-1) – Monitoring -** For the purpose of this permit, periods of excess emissions and monitor downtime that must be reported under Condition 50 are defined as follows:
    a. An excess emission period is a normal unit operating period in which the average one-hour NO_x emission rate exceeds the applicable emission limit in Condition 33; and
    b. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, O_2 concentration, fuel flow rate, or steam pressure. The steam flow rate is only required if the permittee uses this information for compliance purposes.

    (9VAC5-80-490 and Condition 57 of the July 2, 2021 Permit)

47. **Fuel Burning Equipment Requirements - (B-1) – Monitoring –** For purposes of identifying excess emissions:
    a. All CEMS data must be reduced to hourly averages as specified in 40 CFR 60.13(h);
    b. For each operating hour in which a valid hourly average, as described in 40 CFR 60.13(h)(2), is obtained for both NO_x and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm, using the appropriate equation in 40 CFR Part 60, Appendix A, Method 19. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2, a diluent cap value of 19.0 percent O_2 may be used in the emission calculations; and
    c. Only quality assured data from the CEMS shall be used to identify excess emissions. Periods where the missing data substitution procedures in 40 CFR 75, Subpart D are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR 60.7(c).

    (9VAC5-80-490 and Condition 60 of the July 2, 2021 Permit)

NSPS Subpart Db Requirements

48. **Requirements by Reference (B-1)-** Except where this permit is more restrictive than the applicable requirement, the NSPS Subpart Db equipment (auxiliary boiler B-1) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Db. (9VAC5-80-490, 9VAC5-50-100, and Condition 37 of the July 2, 2021 Permit)

Recordkeeping and Reporting

49. **Fuel Burning Equipment Requirements - (B-1, FGH-4 through FGH-6) - Recordkeeping -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Region. These records shall include, but are not limited to:

    a. Monthly and annual throughput of natural gas to the auxiliary boiler (B-1) and the three fuel gas heaters (FGH-4 through FGH-6), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

    b. Fuel quality records for natural gas combusted in the auxiliary boiler (B-1) and fuel gas heaters (FGH-4 through FGH-6);

    c. Continuous monitoring system emissions data, calibrations and calibration checks, and excess emissions;

    d. Scheduled and unscheduled maintenance, and operator training.

    e. Results of all stack tests, visible emission evaluations, and performance evaluations.

    f. Manufacturer's instructions for proper operation of equipment.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-490 and Condition 65 of the July 2, 2021 Permit)

50. **Fuel Burning Equipment Requirements - (B-1) – Reporting -** The permittee shall furnish written reports to the Piedmont Region of excess emissions from any process monitored by a continuous monitoring system (CEMS) on a quarterly basis, postmarked (or electronically submitted) no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:
    a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;

    b. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

c. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

d. Identify periods when the diluent cap was employed during startup and shutdown of the auxiliary boiler (B-1).

e. Excess emissions and monitor downtime report required for NO_x from the Auxiliary Boiler (B-1) in accordance with 40 CFR 60.49b.

(9VAC5-80-490 and Condition 59 of the July 2, 2021 Permit)

Fuel Burning Equipment Requirements – Emergency Units

(EG-1, EG-2, EG-3, FWP-1)

Limitations

51. **Fuel Burning Equipment Requirements: (EG-1, FWP-1) – Emission Controls -** PM_{10}, $PM_{2.5}$, NO_x, CO, SO_2, VOC, and H_2SO_4 emissions from the diesel emergency units (EG-1 and FWP-1) shall be controlled by good combustion practices and the use of ultra low sulfur diesel (ULSD/S15) fuel oil with a maximum sulfur content of 15 ppmw.
(9VAC5-80-490 and Condition 17 of the July 2, 2021 Permit)

52. **Fuel Burning Equipment Requirements: (EG-2, EG-3) – Emission Controls -** PM_{10}, $PM_{2.5}$, NO_x, CO, SO_2, VOC, and H_2SO_4 emissions from the propane emergency units (EG-2 and EG-3) shall be controlled by good combustion practices and demonstrated compliance with NSPS Subpart JJJJ.
(9VAC5-80-490 and Condition 18 of the July 2, 2021 Permit)

53. **Fuel Burning Equipment Requirements: (EG-1, FWP-1) -Greenhouse gasses –** CO_2e emissions from the diesel emergency units (EG-1 and FWP-1) shall be controlled by the use of ULSD/S15 and high efficiency design and operation.
(9VAC5-80-490 and Condition 19 of the July 2, 2021 Permit)

54. **Fuel Burning Equipment Requirements: (EG-1, FWP-1) - Fuel -** The approved fuel for the emergency diesel fire water pump (FWP-1) and emergency diesel generator (EG-1) is ultra low sulfur diesel (ULSD/S15). A change in the fuel may require a permit to modify and operate.
(9VAC5-80-490 and Condition 29 of the July 2, 2021 Permit)

55. **Fuel Burning Equipment Requirements: (EG-2, EG-3) - Fuel -** The approved fuel for the emergency propane generators (EG-2 and EG-3) is liquid petroleum gas (LPG)(as propane). A change in the fuel may require a permit to modify and operate.
(9VAC5-80-490 and Condition 30 of the July 2, 2021 Permit)

56. **Fuel Burning Equipment Requirements: (EG-1, EG-2, EG-3, FWP-1) - Fuel-** The fuels for the fire water pump (FWP-1) and generators (EG-1, EG-2, and EG-3) shall meet the specifications below:

ULTRA LOW SULFUR DIESEL FUEL (ULSD/S15) that meets the ASTM D975-10b specification for S15 fuel oil:

Maximum sulfur content per shipment: 0.0015%

LPG, including butane and propane, which meets ASTM specification D1835.
(9VAC5-80-490 and Condition 31 of the July 2, 2021 Permit)

57. **Fuel Burning Equipment Requirements: (EG-1, EG-2, EG-3, FWP-1) - Operating Hours -** The emergency generators (EG-1, EG-2, EG-3) and emergency fire water pump (FWP-1) shall not operate more than 500 hours each per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-490 and Condition 32 of the July 2, 2021 Permit)

58. **Fuel Burning Equipment Requirements: (EG-1, EG-2, EG-3, FWP-1) - Emergency Operation –** The operation of the emergency generators (EG-1, EG-2, and EG-3) and fire water pump (FWP-1) is limited to emergency situations. Emergency situations include a) emergency generator use to produce power for critical networks or equipment (including power supplied to portions of the facility) when electric power from the local utility (or the normal source, if the facility runs on its own power production) is interrupted and b) emergency engine use to pump water in the case of fire or flood, etc. The emergency generators (EG-1, EG-2, and EG-3) and emergency fire water pump (FWP-1) may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per calendar year for each unit.
(9VAC5-80-490 and Condition 33 of the July 2, 2021 Permit)

59. **Fuel Burning Equipment Requirements: (EG-1, FWP-1) - Fuel Certification -** The permittee shall obtain a certification from the fuel supplier with each shipment of ULSD/S15 oil. Each fuel supplier certification shall include the following:

    a. The name of the fuel supplier;

    b. The date on which the ULSD/S15 oil was received;

    c. The quantity of ULSD/S15 oil delivered in the shipment;

    d. A statement that the fuel oil is ULSD/S15;

    Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 56. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
    (9VAC5-80-490 and Condition 34 of the July 2, 2021 Permit)

60. **Fuel Burning Equipment Requirements: (EG-1, EG-2, EG-3, FWP-1) -** Maintenance and Operation – The permittee must maintain and operate the emergency fire pump (FWP-1) and emergency generators (EG-1, EG-2, and EG-3) according to the manufacturer's written instruction, and/or procedures developed by the permittee using best engineering practices, over the entire life of the engine.
(9VAC5-80-490 and Condition 35 of the July 2, 2021 Permit)

Emissions

61. **Fuel Burning Equipment Requirements - (FWP-1) -** Process Emission Limits - Emissions from the operation of the fire water pump (FWP-1) shall not exceed the limits specified below:

Pollutant	Short term limit	Annual limit
PM (filterable only)	0.09 g/hp-hr	-
PM_{10}	0.09 g/hp-hr	-
$PM_{2.5}$	0.09 g/hp-hr	-
Nitrogen Oxides (as NO_2)	2.6 g/hp-hr	-
Volatile Organic Compounds	0.1 g/hp-hr	-
Carbon Monoxide	0.5 g/hp-hr	-
Sulfur Dioxide	0.00154 lb/MMBtu	-
Sulfuric Acid Mist	0.00012 lb/MMBtu	-
CO_2e	-	127 tons/yr (on a 12-month rolling total)

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 54, 56, 57, 58, 59, 60, and 64.
(9VAC5-80-490 and Condition 43 of the July 2, 2021 Permit)

62. **Fuel Burning Equipment Requirements - (EG-1) - Process Emission Limits -** Emissions from the operation of the diesel emergency generator (EG-1) shall not exceed the limits specified below:

Pollutant	Short term limit	Annual limit
PM (filterable only)	0.2 g/kW-hr	-
PM_{10}	0.4 g/kW-hr	0.6 tons/yr (on a 12-month rolling total)
$PM_{2.5}$	0.4 g/kW-hr	0.6 tons/yr (on a 12-month rolling total)
Nitrogen Oxides (as NO_2) + Non-methane hydrocarbons	6.4 g/kW-hr	8.9 tons/yr (on a 12-month rolling total)
Carbon Monoxide	3.5 g/kW-hr	4.9 tons/yr (on a 12-month rolling total)
Sulfur Dioxide	0.00154 lb/MMBtu	-
Sulfuric Acid Mist	0.00012 lb/MMBtu	
CO_2e	-	981 tons/yr (on a 12-month rolling total)

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence

of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 54, 56, 57, 58, 59, 60, and 64.
(9VAC5-80-490 and Condition 44 of the July 2, 2021 Permit)

63. **Fuel Burning Equipment Requirements - (EG-2, EG-3) - Process Emission Limits -** Emissions from the operation of the propane emergency generators (EG-2 and EG-3) shall not exceed the limits specified below:

Pollutant	Short term limit (each)	Annual limit (combined)
PM_{10}	0.019 g/hp-hr	-
$PM_{2.5}$	0.019 g/hp-hr	-
Sulfur Dioxide	0.00059 lb/MMBtu	-
Nitrogen Oxides (as NO_2)	2.0 g/hp-hr	0.5 tons/yr (on a 12-month rolling total)
Carbon Monoxide	4.0 g/hp-hr	1.0 tons/yr (on a 12-month rolling total)
Volatile Organic Compounds	1.0 g/hp-hr	-
Sulfuric Acid Mist	0.00005 lb/MMBtu	-
CO_2e	-	121 tons/yr (on a 12-month rolling total)

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 55, 56, 57, 58, 60, and 64.
(9VAC5-80-490 and Condition 45 of the July 2, 2021 Permit)

64. **Fuel Burning Equipment Requirements - (EG-1, EG-2, EG-3, FWP-1) - Visible Emission Limit** - Visible emissions from the emergency fire water pump (FWP-1) and emergency generators (EG-1, EG-2, and EG-3) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9VAC5-80-490 and Conditions 49 and 50 of the July 2, 2021 Permit)

Monitoring

65. **Fuel Burning Equipment Requirements: (EG-1, EG-2, EG-3, FWP-1) - Monitoring Devices –** The permittee must install a non-resettable hour meter on the emergency generators (EG-1, EG-2, and EG-3) and the emergency fire water pump (FWP-1) prior to the startup of each unit. The hour meters shall be provided with adequate access for inspection.
(9VAC5-80-490 and Condition 20 of the July 2, 2021 Permit)

NSPS Subparts IIII and JJJJ Requirements

66. **Fuel Burning Equipment Requirements - (EG-1, EG-2, EG-3, FWP-1) – NSPS Requirements by Reference -** Except where this permit is more restrictive than the applicable requirement, the NSPS equipment (EG-1, EG-2, EG-3, and FWP-1) shall be operated in compliance with the requirements of 40 CFR 60, Subpart IIII or Subpart JJJJ as follows:

Unit	Emission Standard, Fuel Requirements	Monitoring & Compliance	Testing	Notification, Reporting, Recordkeeping
EG-1	60.4202, 60.4207	60.4209, 60.4211	60.4212	60.4214
EG-2 & EG-3	60.4233	60.4237, 60.4243	60.4244	60.4245
FWP-1	60.4202 (Table 4), 60.4207	60.4209, 60.4211	60.4212	60.4214

(9VAC5-80-490, 9VAC5-50-410)

MACT Subpart ZZZZ Requirements

67. **Fuel Burning Equipment Requirements - (EG-1, EG-2, EG-3, FWP-1) – MACT Requirements by Reference -** Except where this permit is more restrictive than the applicable requirement, the MACT equipment (EG-1, EG-2, EG-3, and FWP-1) shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ as follows:

Unit	Applicability
EG-1	63.6590(c) a new stationary RICE located at an area source: comply with NSPS IIII
EG-2 & EG-3	63.6590(c) a new stationary RICE located at an area source: comply with NSPS JJJJ
FWP-1	63.6590(c) a new stationary RICE located at an area source: comply with NSPS IIII

(9VAC5-80-490, 9VAC5-60-100)

Recordkeeping

68. **Fuel Burning Equipment Requirements - (EG-1, EG-2, EG-3, FWP-1) - Recordkeeping -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. Annual hours of operation of the emergency fire water pump (FWP-1) and emergency generators (EG-1, EG-2, and EG-3) for emergency purposes and for maintenance checks and readiness testing, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

    b. All fuel supplier certifications for the S15 (ULSD) fuel used in the emergency units (EG-1 and FWP-1);

    c. Scheduled and unscheduled maintenance, and operator training.

    d. Results of all stack tests, visible emission evaluations, and performance evaluations.

    e. Manufacturer’s instructions for proper operation of equipment.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-490 and Condition 65 of the July 2, 2021 Permit)

Process Equipment Requirements - Delugeable Auxiliary Equipment Cooler and Inlet Chillers

(AEC-1, CH-1 through 4)

Limitations, Monitoring, and Testing

69. **Process Equipment Requirements - Emission Controls (CH-1 through 4)–** Particulate matter emissions from the four, 9,690-gallon/minute inlet chillers (IC-1 through IC-4) shall be controlled to a drift rate of 0.0005 percent of the circulating water flow and a total dissolved solids content of the cooling water of no more than 1500 mg/l. The permittee shall keep a log of weekly testing for total dissolved solids content of the cooling water. Weekly testing for dissolved solids shall be done when the Chiller Package is in service for more than eight consecutive hours during a calendar week.
(9VAC5-80-490 and Condition 21 of the July 2, 2021 Permit)

70. **Process Equipment Requirements - Emission Controls (AEC-1) –** Particulate matter emissions from the 3,000 gallon/minute delugeable auxiliary equipment cooler (AEC-1) shall be controlled to a drift rate of 0.010 percent of the circulating water flow and a total dissolved solids content of the cooling water of no more than 300 mg/l. The permittee shall keep a log of weekly testing for total dissolved solids content of the cooling water. Weekly testing for total dissolved solids shall be done when the Deluge System is in service for more than two consecutive hours during a calendar week.
(9VAC5-80-490 and Condition 22 of the July 2, 2021 Permit)

Recordkeeping

71. **Process Equipment Requirements -** On Site Records (CH-1 through 4, and AEC-1) - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. Weekly logs of dissolved solids content of cooling water to the four inlet chillers (CH-1 through 4) and the auxiliary equipment cooler (AEC-1).

    b. Scheduled and unscheduled maintenance, and operator training.

    c. Manufacturer's instructions for proper operation of equipment.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-490 and Condition 65 of the July 2, 2021 Permit)

Process Equipment Requirements – Fugitive Equipment Leaks
(FUG-1)

Monitoring and Recordkeeping

72. **Process Equipment Requirements - Emission Controls (FUG-1)** – Fugitive emissions from natural gas piping components (valves and flanges) located on the power plant property (FUG-1) shall be minimized by using best management practices to prevent, detect and repair leaks of natural gas from the piping components. At commencement of commercial operation, the permittee shall implement a daily auditory/ visual/olfactory (AVO) inspection program for detecting leaking in natural gas piping components. The first attempt to repair any component found to be leaking during an AVO inspection shall be made within 5 days. The leaking component shall be repaired within 15 days of discovery. The permittee shall maintain a list of difficult to repair components, which when leaking, the repair requires facility shutdown or cannot otherwise be completed within 15 days of discovery. Documentation justifying the inclusion of a component on the list shall be included. Records of the daily AVO inspection results, dates and results of first and final repair attempts, any repairs performed to the piping components (valves and flanges), and the list of long-term leaking components and reason for each delay shall be maintained on site.
(9VAC5-80-490 and Condition 23 of the July 2, 2021 Permit)

Process Equipment Requirements – Circuit Breakers
(CB-1 through CB-13)

Limitations

73. **Process Equipment Requirements - Emission Controls (CB-1 through CB-13) –** Greenhouse gas emissions (including SF_6) from the thirteen electrical circuit breakers and generator breakers (CB-1 through CB-13) shall be controlled by an enclosed-pressure circuit breaker, with a maximum annual leakage rate of 0.5 percent, and a low pressure detection system (with alarm). The low pressure detection system shall be in operation when the circuit breakers are in use.
(9VAC5-80-490 and Condition 24 of the July 2, 2021 Permit)

74. **Process Equipment Requirements – Electrical breakers (CB-1 through CB-13) -** Emissions from the operation of the electrical circuit breakers and generator breakers (CB-1 through CB-13) shall not exceed the limits specified below:

Circuit Breakers CB1-CB10 combined	824 tons of CO_2-e/year (12-month rolling total)
Circuit Breakers CB11-CB13 combined	25 tons of CO_2-e/year (12-month rolling total)

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 73.
(9VAC5-80-490 and Condition 42 of the July 2, 2021 Permit)

Recordkeeping

75. **Process Equipment Requirements - On Site Records (CB-1 through CB-13) -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. Records showing the circuit breakers (CB-1 through CB-13) are operating in accordance with the manufacturer's specifications.

    b. Scheduled and unscheduled maintenance, and operator training.

    c. Manufacturer's instructions for proper operation of equipment.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-490 and Condition 65 of the July 2, 2021 Permit)

Facility Wide Conditions

76. **Facility Wide Conditions – Monitoring - Visible Emissions -** The permittee shall perform observations on the stacks of the following emission units to determine the presence of visible emissions. Visible emissions checks shall be conducted each month in which that unit has operated, for a sufficient time interval to determine if there are any visible emissions. If visible emissions are observed from a stack, a visible emissions evaluation (VEE), in accordance with 40 CFR Part 60, Appendix A, Method 9 shall be conducted on that stack. The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the applicable opacity limit for that emission unit, the observation period shall continue until a total of 60 minutes of observation has been completed. A Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner such that no visible emissions are present; the emissions unit is operating at normal operating conditions; and the cause and corrective measures taken are recorded. If six consecutive observations for each unit indicate no visible emissions, or a Method 9 VEE indicates visible emissions were less than the opacity limit for that unit, then the frequency of monitoring may revert to a quarterly period in which that unit had operated. Monitoring shall revert to a monthly basis if a subsequent quarterly observation indicates the presence of visible emissions. Quarterly monitoring may resume after another six consecutive months with no observed visible emissions or a Method 9 reading indicates opacity to be less than the opacity limit.

Emission Unit IDs	Opacity limitation
CT-1, CT-2, CT-3	Condition 15
B-1, FGH-4, FGH-5, FGH-6	Condition 43
EG-1, EG-2, EG-3, FWP-1	Condition 64

The permittee shall maintain records of all visible emission observations, including the equipment ID, date of observation, result of observation, description of any action taken,

and the results of any VEEs. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-490)

77. **Facility Wide Conditions – Testing –** Upon request by DEQ, the permittee shall conduct additional performance tests to determine compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Piedmont Regional Office.
(9VAC5-80-490 and Condition 64 of the July 2, 2021 Permit)

78. **Facility Wide Conditions - Testing -** The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from excessive cyclonic flow as defined in 40 CFR 60 Appendix A. Sampling ports shall be provided at the appropriate locations and access shall be provided.
(9VAC5-50-30 and 9VAC5-80-490 and Condition 66 of the July 2, 2021 Permit)

Insignificant Emission Units

79. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit ID	Emission Unit Description	Citation	Pollutant Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
IS-1 through IS-3 and IS-4	Three CO_2 fire suppression system tanks and one CO_2 bulk storage tank	5-20-720.A.27	CO_2	IS-1 through IS-3: 12,000 lbs each IS-4: 28,000 lbs
IS-5 (T-1)	Diesel storage tank	5-20-720.B.2	VOC	6,000-gallon storage capacity

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-490.
(9VAC5-80-490)

Permit Shield & Inapplicable Requirements

80. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 63 Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers – Area Sources	Applies to boilers at area sources of HAP, however the auxiliary boiler (B-1) is not subject to this regulation because it meets the definition of gas-fired boiler in 40 CFR 63.11195(e).
40 CFR 63 Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Source Combustion Turbines	Applies at major sources of HAPs: The facility is not a major source of HAPs so the combustion turbines (CT-1, CT-2, CT-3) are not subject to any requirements in this regulation.
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984	Applies to VOC storage vessels: The distillate fuel storage tank (IS-5) holds liquids with a vapor pressure less than 3.5 kPa so it is not subject to this regulation.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9VAC5-80-490 and 9VAC5-80-500)

General Conditions

81. **General Conditions - Federal Enforceability -** All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC5-80-490)

82. **General Conditions – Permit Expiration**
    a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-430, the right of the facility to operate shall be terminated upon permit expiration.

    b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

    c. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 3, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-510.

d. In accordance with 9VAC5-80-430F.7.d, a complete acid rain permit application shall be binding on the owners and operators and the designated representative of the affected source and the affected units covered by the permit application and shall be enforceable as an acid rain permit from the date of submission of the permit application until the issuance or denial of such permit as a final agency action subject to judicial review.

e. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-430 for a renewal permit, except in compliance with a permit issued under Article 3, Part II of 9VAC5 Chapter 80.

f. If an applicant submits a timely and complete application under section 9VAC5-80-430 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-500, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

g. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-430 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-430 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9VAC5-80-490, 9VAC5-80-430 and 9VAC5-80-530)

83. **General Conditions -Recordkeeping and Reporting -** All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

a. The date, place as defined in the permit, and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of such analyses; and

f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-490)

84. **General Conditions -Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9VAC5-80-490)

85. **General Conditions -Recordkeeping and Reporting -** The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:

    a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and

    b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

        i. Exceedances of emissions limitations or operational restrictions;

        ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

        iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

    c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

    (9VAC5-80-490)

86. **General Conditions - Annual Compliance Certification** - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:

    a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

    b. The identification of each term or condition of the permit that is the basis of the certification;

    c. The compliance status;

    d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. Consistent with subsection 9VAC5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;

f. Such other facts as the permit may require to determine the compliance status of the source; and

One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address: R3_APD_Permits@epa.gov
(9VAC5-80-490)

87. **General Conditions - Permit Deviation Reporting -** The permittee shall notify the Piedmont Regional Office within four daytime business hours after discovery of any deviations from permit requirements that may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 85 of this permit.
(9VAC5-80-490)

88. **General Conditions - Failure/Malfunction Reporting -** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Piedmont Regional Office of such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Piedmont Regional Office.
(9VAC5-80-490 and 9VAC5-20-180 C)

89. **General Conditions - Failure/Malfunction Reporting -** The emission units that have continuous monitors subject to 9VAC5-50-50 C are not subject to the 14-day written notification.
(9VAC5-80-490, 9VAC5-20-180 C and 9VAC5-50-50)

90. **General Conditions - Failure/Malfunction Reporting -** The emission units subject to the reporting and the procedure requirements of 9VAC5-50-50 C are the combustion turbines (CT-1, CT-2, CT-3).
(9VAC5-80-490, 9VAC5-20-180 C and 9VAC5-50-50)

91. **General Conditions - Failure/Malfunction Reporting** - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board quarterly. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. All reports shall include the following information:

    a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

    b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

    c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

    d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

    All malfunctions of emission units not subject to 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction.
    (9VAC5-80-490, 9VAC5-20-180 C and 9VAC5-50-50)

92. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
    (9VAC5-80-490)

93. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
    (9VAC5-80-490)

94. **General Conditions - Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
    (9VAC5-80-490)

95. **General Conditions - Permit Modification -** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-360, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC5-80-490, 9VAC5-80-550 and 9VAC5-80-660)

96. **General Conditions - Property Rights -** The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-490)

97. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9VAC5-80-490)

98. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-430 G.
(9VAC5-80-490)

99. **General Conditions - Duty to Pay Permit Fees -** The owner of any source for which a permit under 9VAC5-80-360 through 9VAC5-80-700 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the DEQ by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by DEQ. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9VAC5-80-2340, adjusted annually by the change in the Consumer Price Index.
(9VAC5-80-490, 9VAC5-80-340 C and 9VAC5-80-2340 B)

100. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-50-90 and 9VAC5-80-490)

101. **General Conditions - Startup, Shutdown, and Malfunction -** At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9VAC5-50-20 E and 9VAC5-80-490)

102. **General Conditions - Alternative Operating Scenarios -** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-500 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 3.
(9VAC5-80-490)

103. **General Conditions - Inspection and Entry Requirements** - The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-490)

104. **General Conditions - Reopening for Cause -** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-430 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-490 D.

(9VAC5-80-490)

105. **General Conditions - Permit Availability -** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC5-80-490 and 9VAC5-80-510)

106. **General Conditions - Transfer of Permits –**

a. No person shall transfer a permit from one location to another.

b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-560.

c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-560.

(9VAC5-80-490 and 9VAC5-80-520)

107. **General Conditions - Permit Revocation or Termination for Cause -** A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 3. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-490, 9VAC5-80-550 and 9VAC5-80-660)

108. **General Conditions - Duty to Supplement or Correct Application -** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9VAC5-80-490 and 9VAC5-80-430)

109. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9VAC5-80-490 and 40 CFR Part 82, Subparts A-F)

110. **General Conditions - Asbestos Requirements -** The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9VAC5-60-70 and 9VAC5-80-490)

111. **General Conditions - Accidental Release Prevention** - If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(9VAC5-80-490 and 40 CFR Part 68)

112. **General Conditions - Changes to Permits for Emissions Trading -** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC5-80-490)

113. **General Conditions - Emissions Trading -** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

a. All terms and conditions required under 9VAC5-80-490, except subsection N, shall be included to determine compliance.

b. The permit shield described in 9VAC5-80-500 shall extend to all terms and conditions that allow such increases and decreases in emissions.

c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-360 through 9VAC5-80-700.

(9VAC5-80-490)

Title IV (Phase II Acid Rain Program) Permit Allowances and Requirements

114. **Phase II Acid Rain Program - Statutory and Regulatory** Authorities - In accordance with the Air Pollution Control Law of Virginia §10.1-1308 and §10.1-1322, the Environmental Protection Agency (EPA) Final Full Approval of the Operating Permits Program (Titles IV and V) published in the Federal Register December 4, 2001, Volume 66, Number 233, Rules and Regulations, Pages 62961-62967 and effective November 30, 2001, and Title 40, the Code of Federal Regulations §§72.1 through 76.16, the Commonwealth of Virginia Department of Environmental Quality (DEQ) issues this permit pursuant to 9VAC5 Chapter 80, Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution (Federal Operating Permit Article 3).
(9VAC5-80-490)

115. **Phase II Acid Rain Program - Permit Requirements**

a. The designated representative of each affected source and each affected unit at the source shall:

i. Submit a complete Acid Rain Permit application and acid rain compliance plan under 40 CFR Part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

ii. Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit.

b. The owners and operators of each affected source and each affected unit at the source shall:

i. Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

ii. Have an Acid Rain Permit.

(9VAC5-80-420, 9VAC5-80-430, 9VAC5-80-490 and 40 CFR Part 72.9(a))

116. **Phase II Acid Rain Program - Monitoring Requirements**

a. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75.

b. The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

c. The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the federal Clean Air Act and other provisions of the operating permit for the source.

(9VAC5-80-490 and 40 CFR 72.9(b))

117. **Phase II Acid Rain Program - Sulfur Dioxide Requirements -** The owners and operators of each source and each affected unit at the source shall:

a. Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

b. SO_2 Allowance Allocations for affected units: None. Because Emission Units CT-1, CT-2, and CT-3 were not eligible for SO_2 allowance allocations by the U.S. EPA under Section 405 of the Clean Air Act and the Acid Rain Program, no allocations were assigned in 40 CFR Part 73, Table 2.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR Parts 72 and 73)

118. **Phase II Acid Rain Program – Sulfur Dioxide Requirements -** SO_2 allowances may be acquired from other sources in addition to those allocated by U.S. EPA. No revision to this permit is necessary in order for the owners and operators of this unit to hold additional allowances recorded in accordance with 40 CFR Part 73. The owners and operators of this unit remain obligated to hold sufficient allowances to account for SO_2 emissions from this unit in accordance with 40 CFR 72.9(c)(1).
(9VAC5-80-420, 9VAC5-80-490 and 40 CFR Parts 72 and 73)

119. **Phase II Acid Rain Program – Sulfur Dioxide Requirements**

a. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the federal Clean Air Act.

b. An affected unit shall be subject to the requirements under 9VAC5-80-420 C.1.as follows:

i. Starting January 1, 1995, an affected unit under 9VAC5-80-380 A.2.; or

ii. Starting on the later of January 1, 1995, in accordance with 40 CFR 72.41 and 72.43, an affected unit under 40 CFR 72.6(a)(2) or (3) that is a substitution or compensating unit; or

iii. Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2) that is not a substitution or compensating unit; or

iv. Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 9VAC5-80-380 A.3. that is not a substitution or compensating unit.

c. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

d. An allowance shall not be deducted in order to comply with the sulfur dioxide requirements of 40 CFR 72.9(c)(1)(i) prior to the calendar year for which the allowance was allocated.

e. An allowance allocated by the EPA Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

f. An allowance allocated by the EPA Administrator under the Acid Rain Program does not constitute a property right.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(c))

120. **Phase II Acid Rain Program - Nitrogen Oxides Requirements -** The owners and operators of CT-1, CT-2, and CT-3 shall comply with the applicable Acid Rain emissions limitation for NO_X. NO_X Requirements: None. The units do not burn coal so there are no NO_X emission limits.
(9VAC5-80-490 and 40 CFR 72.9(d))

121. **Phase II Acid Rain Program - Excess Emissions Requirements**

a. The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.

b. The owners and operators of an affected source that has excess emissions in any calendar year shall:

i. Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and

ii. Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(e))

122. **Phase II Acid Rain Program - Recordkeeping and Reporting Requirements**

a. Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

i. The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

ii. All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

iii. Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

iv. Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

b. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72 Subpart I and 40 CFR Part 75.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(f))

123. **Phase II Acid Rain Program - Liability**

a. Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 9VAC5-80-390 or 9VAC5-80-400 and 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the federal Clean Air Act and by the board pursuant to §§ 10.1-1316 and 10.1-1320 of the Code of Virginia.

b. Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the federal Clean Air Act and 18 U.S.C. 1001 and by the board pursuant to §§ 10.1-1316 and 10.1-1320 of the Code of Virginia.

c. No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

d. Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

e. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

f. Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.

g. Each violation of a provision of the Acid Rain Program regulations (40 CFR Parts 72, 73, 74, 75, 76, 77, and 78) by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the federal Clean Air Act.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(g))

124. **Phase II Acid Rain Program - Effect on Other Authorities** - No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 9VAC5-80-390 or 9VAC5-80-400 and 40 CFR 72.7 or 72.8 shall be construed as:

a. Except as expressly provided in Title IV of the federal Clean Air Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the federal Clean Air Act, including the provisions of title I of the federal Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

b. Limiting the number of allowances a source can hold; *provided,* that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the federal Clean Air Act;

c. Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

d. Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

e. Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(h))

Cross State Air Pollution Rule (CSAPR)

The CSAPR subject units and the unit-specific monitoring provisions at this source are identified in the following table. These units are subject to the requirements for the CSAPR NO_x Annual

Trading Program, CSAPR SO_2 Group 1 Trading Program, and CSAPR NO_x Ozone Season Group 3 Trading Program.

CSAPR Monitoring Provisions Table
Unit ID Dominion Energy Greensville County Power Station: Units CT-1, CT-2, CT-3

Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO_2 monitoring) and 40 CFR part 75, subpart H (for NO_x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR Part 75, Subpart E
SO_2	No	Yes	N/A	N/A	N/A
NOx	Yes	N/A	N/A	N/A	N/A
Heat Input	Yes	Yes	N/A	N/A	N/A

125. **CSAPR –** The descriptions of the monitoring used by a unit in the (9VAC5above does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (CSAPR NO_x Annual Trading Program), 97.630 through 97.635 (CSAPR SO_2 Group 1 Trading Program), and 97.1030 through 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR trading programs (Conditions 126 through 132).
(9VAC5-80-490 and 40 CFR 97)

126. **CSAPR –** Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at https://www.epa.gov/airmarkets/clean-air-markets-monitoring-plans-part-75-sources.
(9VAC5-80-490 and 40 CFR 97)

127. **CSAPR –** Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), 97.635 (CSAPR SO_2 Group 1 Trading Program), and/or 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at https://www.epa.gov/airmarkets/part-75-petition-responses.
(9VAC5-80-490 and 40 CFR 97)

128. **CSAPR –** Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (CSAPR NO_x Annual Trading Program), 97.630 through 97.634 (CSAPR SO_2 Group 1 Trading Program), and/or 97.1030 through 97.1034 (CSAPR NO_x Ozone Season Group 3 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), 97.635 (CSAPR SO_2 Group 1 Trading Program), and/or 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on EPA's website at https://www.epa.gov/airmarkets/part-75-petition-responses.
(9VAC5-80-490 and 40 CFR 97)

129. **CSAPR –** The descriptions of monitoring applicable to the units included in the (9VAC5above meet the requirement of 40 CFR 97.430 through 97.434 (CSAPR NO_x Annual Trading Program), 97.630 through 97.634 (CSAPR SO_2 Group 1 Trading Program), and/or 97.1030 through 97.1034 (CSAPR NO_x Ozone Season Group 3 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B), may be used to add to or change these units' monitoring system descriptions.
(9VAC5-80-490 and 40 CFR 97)

130. **CSAPR NOx Annual Trading Program -** The following conditions must be adhered to for CT-1, CT-2, and CT-3, which are subject to the CSAPR NO_x Annual Trading Program:

    a. Designated representative requirements. - The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

    b. Emissions monitoring, reporting, and recordkeeping requirements.

        i. The owners and operators, and the designated representative, of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

        ii. The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of CSAPR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the CSAPR NO_x Annual emissions limitation and assurance provisions under paragraph 130.c

below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c. NOx emissions requirements.

i. CSAPR NO_x Annual emissions limitation.

(a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NOx Annual source and each CSAPR NOx Annual unit at the source shall hold, in the source's compliance account, CSAPR NOx Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NOx emissions for such control period from all CSAPR NOx Annual units at the source.

(b) If total NOx emissions during a control period in a given year from the CSAPR NOx Annual units at a CSAPR NOx Annual source are in excess of the CSAPR NOx Annual emissions limitation set forth in paragraph 130.c.i(a) above, then:

(i) The owners and operators of the source and each CSAPR NOx Annual unit at the source shall hold the CSAPR NOx Annual allowances required for deduction under 40 CFR 97.424(d); and

(ii) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

ii. CSAPR NO_x Annual assurance provisions.

(a) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying—

(i) The quotient of the amount by which the common designated representative's share of such NOx emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NOx emissions exceeds the respective common designated representative's assurance level; and

(ii) The amount by which total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state for such control period exceed the state assurance level.

(b) The owners and operators shall hold the CSAPR NO_x Annual allowances required under paragraph 130.c.ii(a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(c) Total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).

(d) It shall not be a violation of 40 CFR part 97, subpart AAAAA or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state during a control period exceeds the common designated representative's assurance level.

(e) To the extent the owners and operators fail to hold CSAPR NO_x Annual allowances for a control period in a given year in accordance with paragraphs 130.c.ii(a) through 130.c.ii(c) above,

(i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(ii) Each CSAPR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs 130.c.ii(a) through 130.c.ii(c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

iii. Compliance periods.

(a) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph 130.c above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

(b) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph 130.c.ii above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

iv. Vintage of allowances held for compliance.

(a) A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraph 130.c.i(a) above for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.

(b) A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraph 130.c.i(b)(i) and 130.c.ii(a) through 130.c.ii(c) above for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

v. Allowance Management System requirements. Each CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.

vi. Limited authorization. A CSAPR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(a) Such authorization shall only be used in accordance with the CSAPR NOx Annual Trading Program; and

(b) Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

vii. Property right. A CSAPR NO_x Annual allowance does not constitute a property right.

d. Title V permit revision requirements.

i. No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.

ii. This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the monitoring descriptions in the

(9VAC5above, for units CT-1, CT-2, and CT-3, may be added to or changed in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B).

e. Additional recordkeeping and reporting requirements.

i. Unless otherwise provided, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(a) The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.

(b) All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Annual Trading Program.

ii. The designated representative of a CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall make all submissions required under the CSAPR NO_x Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR parts 70.

f. Liability.

i. Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NOx Annual source or the designated representative of a CSAPR NO_x Annual source shall also apply to the owners and operators of such source and of the CSAPR NO_x Annual units at the source.

ii. Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NOx Annual unit or the designated representative of a CSAPR NO_x Annual unit shall also apply to the owners and operators of such unit.

g. Effect on other authorities. No provision of the CSAPR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Annual source or CSAPR NO_x Annual unit from compliance with any other provision of the

applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(9VAC5-80-490 and 40 CFR 97.406)

131. **CSAPR SO_2 Group 1 Trading Program -** The following conditions must be adhered to for CT-1, CT-2, and CT-3, which are subject to the CSAPR SO_2 Group 1 Trading Program:

a. Designated representative requirements. The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618.

b. Emissions monitoring, reporting, and recordkeeping requirements.

i. The owners and operators, and the designated representative, of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

ii. The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of CSAPR SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the CSAPR SO_2 Group 1 emissions limitation and assurance provisions under paragraph 131.c below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c. SO_2 emissions requirements.

i. CSAPR SO_2 Group 1 emissions limitation.

(a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO_2 emissions for such control period from all CSAPR SO_2 Group 1 units at the source.

(b) If total SO_2 emissions during a control period in a given year from the CSAPR SO_2 Group 1 units at a CSAPR SO_2 Group 1 source are in excess of the CSAPR SO_2 Group 1 emissions limitation set forth in paragraph 131.c.i(a) above, then:

(i) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall hold the CSAPR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and

(ii) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.

ii. CSAPR SO_2 Group 1 assurance provisions.

(a) If total SO_2 emissions during a control period in a given year from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO_2 emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—

(i) The quotient of the amount by which the common designated representative's share of such SO_2 emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the for such control period, by which each common designated representative's share of such SO_2 emissions exceeds the respective common designated representative's assurance level; and

(ii) The amount by which total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state for such control period exceed the state assurance level.

(b) The owners and operators shall hold the CSAPR SO_2 Group 1 allowances required under paragraph 131.c.ii(a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(c) Total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period in a given year exceed the state

assurance level if such total SO_2 emissions exceed the sum, for such control period, of the state SO_2 Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).

(d) It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO_2 emissions from the CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.

(e) To the extent the owners and operators fail to hold CSAPR SO_2 Group 1 allowances for a control period in a given year in accordance with paragraphs 131.c.ii(a) through 131.c.ii(c) above,

(i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(ii) Each CSAPR SO_2 Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs 131.c.ii(a) through 131.c.ii(c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act.

iii. Compliance periods.

(a) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under paragraph 131.c.i above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.

(b) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under paragraph 131.c.ii above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.

iv. Vintage of allowances held for compliance.

(a) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under paragraph 131.c.i(a) above for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated for such control period or a control period in a prior year.

(b) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under paragraphs 131.c.i(b)(i) and 131.c.ii(a) through 131.c.ii(c) above for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

v. Allowance Management System requirements. Each CSAPR SO_2 Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between

Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC.

vi. Limited authorization. A CSAPR SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 during the control period in one year. Such authorization is limited in its use and duration as follows:

(a) Such authorization shall only be used in accordance with the CSAPR SO_2 Group 1 Trading Program; and

(b) Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

vii. Property right. A CSAPR SO_2 Group 1 allowance does not constitute a property right.

d. Title V permit revision requirements.

i. No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO_2 Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.

ii. This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E), Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B).

e. Additional recordkeeping and reporting requirements.

i. Unless otherwise provided, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(a) The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each CSAPR SO_2 Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a

new certificate of representation under 40 CFR 97.616 changing the designated representative.

(b) All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO_2 Group 1 Trading Program.

ii. The designated representative of a CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall make all submissions required under the CSAPR SO_2 Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70.

f. Liability.

i. Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 source or the designated representative of a CSAPR SO_2 Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO_2 Group 1 units at the source.

ii. Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 unit or the designated representative of a CSAPR SO_2 Group 1 unit shall also apply to the owners and operators of such unit.

g. Effect on other authorities. - No provision of the CSAPR SO_2 Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO_2 Group 1 source or CSAPR SO_2 Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(9VAC5-80-490 and 40 CFR 97.606)

132. **CSAPR NO_x Ozone Season Group 3 Trading Program -** The following conditions must be adhered to for CT-1, CT-2, and CT-3, which are subject to the CSAPR NO_x Group 3 Trading Program.

a. Designated representative requirements. The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.1013 through 97.1018.

b. Emissions monitoring, reporting, and recordkeeping requirements.

i. The owners and operators, and the designated representative, of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.1030 (general requirements, including installation,

certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.1031 (initial monitoring system certification and recertification procedures), 97.1032 (monitoring system out-of-control periods), 97.1033 (notifications concerning monitoring), 97.1034 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.1035 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

ii. The emissions data determined in accordance with 40 CFR 97.1030 through 97.1035 shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 3 allowances under 40 CFR 97.1011(a)(2) and (b) and 97.1012 and to determine compliance with the CSAPR NO_x Ozone Season Group 3 emissions limitation and assurance provisions under paragraph 132.c below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.1030 through 97.1035 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c. NO_x emissions requirements.

i. CSAPR NO_x Ozone Season Group 3 emissions limitation.

(a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NOx Ozone Season Group 3 source and each CSAPR NOx Ozone Season Group 3 unit at the source shall hold, in the source's compliance account, CSAPR NOx Ozone Season Group 3 allowances available for deduction for such control period under 40 CFR 97.1024(a) in an amount not less than the tons of total NOx emissions for such control period from all CSAPR NOx Ozone Season Group 3 units at the source.

(b) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 3 units at a CSAPR NO_x Ozone Season Group 3 source are in excess of the CSAPR NO_x Ozone Season Group 3 emissions limitation set forth in paragraph 132.c.i(a) above, then:

(i) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall hold the CSAPR NO_x Ozone Season Group 3 allowances required for deduction under 40 CFR 97.1024(d); and

(ii) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart GGGGG and the Clean Air Act.

ii. CSAPR NO_x Ozone Season Group 3 assurance provisions.

(a) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Ozone Season Group 3 allowances available for deduction for such control period under 40 CFR 97.1025(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.1025(b), of multiplying—

(i) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and

(ii) The amount by which total NO_x emissions from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state for such control period exceed the state assurance level.

(b) The owners and operators shall hold the CSAPR NO_x Ozone Season Group 3 allowances required under paragraph 132.c.ii(a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(c) Total NO_x emissions from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state CSAPR NO_x Ozone Season Group 3 trading budget under 40 CFR 97.1010(a) the state's variability limit under 40 CFR 97.1010(b), and, for the control period in 2021 only, the product (rounded to nearest allowance) of 1.21 multiplied by the supplemental amount of CSAPR NOx Ozone Season Group 3 allowances determined for the state under 97.1010(d).

(d) It shall not be a violation of 40 CFR part 97, subpart GGGGG or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Ozone

Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state during a control period exceeds the common designated representative's assurance level.

(e) To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 3 allowances for a control period in a given year in accordance with paragraphs 132.c.ii(a) through 132.c.ii(c) above,

(i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(ii) Each CSAPR NO_x Ozone Season Group 3 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs 132.c.ii(a) through 132.c.ii(c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart GGGGG and the Clean Air Act.

iii. Compliance periods.

(a) CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under paragraph 132.c.i above for the control period starting on the later of May 1, 2021 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.1030(b) and for each control period thereafter.

(b) CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under paragraph 132.c.ii above for the control period starting on the later of May 1, 2021 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.1030(b) and for each control period thereafter.

iv. Vintage of allowances held for compliance.

(a) A CSAPR NO_x Ozone Season Group 3 allowance held for compliance with the requirements under paragraph 132.c.i(a) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 3 allowance that was allocated for such control period or a control period in a prior year.

(b) A CSAPR NO_x Ozone Season Group 3 allowance held for compliance with the requirements under paragraphs 132.c.i(b)(i) and 132.c.ii(a) through 132.c.ii(c) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 3 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

v. Allowance Management System requirements. Each CSAPR NO_x Ozone Season Group 3 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart GGGGG.

vi. Limited authorization. A CSAPR NO_x Ozone Season Group 3 allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(a) Such authorization shall only be used in accordance with the CSAPR NO_x Ozone Season Group 3 Trading Program; and

(b) Notwithstanding any other provision of 40 CFR part 97, subpart GGGGG, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

vii. Property right. A CSAPR NO_x Ozone Season Group 3 allowance does not constitute a property right.

d. Title V permit revision requirements.

i. No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 3 allowances in accordance with 40 CFR part 97, subpart GGGGG.

ii. This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.1030 through 97.1035, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subpart H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), or an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the monitoring descriptions in the CSAPR Monitoring Provisions table for units identified in this permit, may be added to or changed in this Title V permit using minor permit modification procedures in accordance with 40 CFR 97.1006(d)(2) and 70.7(e)(2)(i)(B).

e. Additional recordkeeping and reporting requirements.

i. Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(a) The certificate of representation under 40 CFR 97.1016 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 3 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.1016 changing the designated representative.

(b) All emissions monitoring information, in accordance with 40 CFR part 97, subpart GGGGG.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Ozone Season Group 3 Trading Program.

ii. The designated representative of a CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall make all submissions required under the CSAPR NO_x Ozone Season Group 3 Trading Program, except as provided in 40 CFR 97.1018. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR parts 70.

f. Liability.

i. Any provision of the CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 source or the designated representative of a CSAPR NO_x Ozone Season Group 3 source shall also apply to the owners and operators of such source and of the CSAPR NO_x Ozone Season Group 3 units at the source.

ii. Any provision of the CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 unit or the designated representative of a CSAPR NO_x Ozone Season Group 3 unit shall also apply to the owners and operators of such unit.

g. Effect on other authorities. - No provision of the CSAPR NO_x Ozone Season Group 3 Trading Program or exemption under 40 CFR 97.1005 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Ozone Season Group 3 source or CSAPR NO_x Ozone Season Group 3 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(9VAC5-80-490 and 40 CFR 97.1006)